



AFFIDAVIT OF MICHELLE RATCHFORD

STATE OF TEXAS

§  
§  
§

COUNTY OF BEXAR

I, Michelle R. Ratchford, do hereby aver and state that:

1. I am over the age of 18;
2. I have a M.S. degree and a B.S. degree in Chemistry from The University of Texas at San Antonio;
3. I have been employed by Southwest Research Institute ("SwRI") for 16 years. SwRI is an independent, nonprofit, applied engineering and physical sciences research and development organization. For the past thirteen years, I have been in the Fuel Conformance Section of the Petroleum Products Research Department. For the past three years, I have been Manager of Fuel Conformance. Fuel Conformance is responsible for providing analytical and physical testing and the evaluation and qualification of fuels procured by contractors in the field for our clients which include major oil corporations.
4. Clients of SwRI requested Fuels Conformance to analyze gasoline blends in June, 1992. Our assignment included the testing of certain physical and chemical properties of such gasoline fuels in selected areas of the United States. The report of our findings is set forth in *Exhibit A* and *Exhibit B*. Copies of *Exhibit A* and *Exhibit B* are attached. I have reviewed *Exhibit A* and *Exhibit B* and am familiar with the entire report from which these Exhibits are excerpted.
5. The first datapoint in *Exhibit B* and the second datapoint of *Exhibit A* report a gasoline fuel containing 9.2 volume percent ethanol and exhibiting a Reid Vapor Pressure (RVP) of 6.7. This datapoint is certainly unusual and one versed in the field of gasoline fuels would readily conclude that this datapoint is not typical of the fuels normally produced or distributed for the June, 1992 time period. The cause of this unusual result cannot now be determined but could be attributable to analysis errors, sample production, sample distribution problems, in tank product mixing or the use of unauthorized blending components at the retail outlet. As such, the RVP for this gasoline fuel is unusual and outside of the range of data that would have normally been anticipated for the June, 1992 time period.

6. FURTHER AFFIANT sayeth not.

DATED: August 6, 2001.

Michelle R. Ratchford  
Michelle R. Ratchford

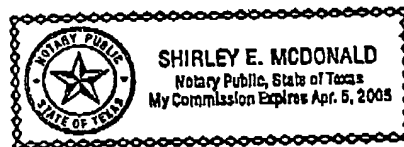
STATE OF TEXAS       §  
                              §  
COUNTY OF BEXAR   §

BEFORE ME, the undersigned authority, on this day personally appeared Michelle Ratchford, known to me to be the person whose name is subscribed to the foregoing instrument; and acknowledged to me under oath that she executed the foregoing document.

SUBSCRIBED AND SWORN TO BEFORE ME on this the 6 day of August, 2001.

Shirley E. McDonald  
Shirley E. McDonald  
Printed Name:

NOTARY PUBLIC IN AND FOR  
THE STATE OF TEXAS



# Exhibit A

GASOLINE DATA 1992  
JUNE  
ASTM D-86 DISTILLATION

	RON	MON	R+M/2	OCT.	API	GRAV	10% 50% 90%	RVP	% O2	MTBE	ETBE	DIPE	TAME	STOH
	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	95.5	83.6	89.6	89.0	57.1	122	176 343	9.8	.0	.0	.0	.0	.0	9.3
	94.7	84.2	89.5	90.0	58.5	122	178 332	6.7	.0	.0	.0	.0	.0	9.2
	94.8	84.3	89.6	89.0	58.6	118	178 330	9.6	.0	.0	.0	.0	.0	9.4
	95.0	84.9	90.0	89.0	58.9	121	176 329	9.6	.0	.0	.0	.0	.0	8.3
MU	95.0	84.2	89.7	89.3	58.3	121	177 334	8.9	.0	.0	.0	.0	.0	9.0
	97.1	86.8	92.0	92.0	61.4	138	218 336	7.2	.0	.0	.0	.0	.0	.0
	95.6	85.8	90.7	91.0	58.4	132	230 327	8.6	.0	.0	.0	.0	.0	.0
	95.8	85.9	90.9	91.0	57.8	130	228 321	8.5	.0	.0	.0	.0	.0	.0
	98.4	87.3	92.9	93.5	58.2	126	206 312	8.8	.0	13.1	.0	.0	.0	.0
	96.2	86.1	91.2	91.0	55.1	127	228 325	8.2	.0	.0	.0	.0	.0	.0
	97.4	85.9	91.7	91.0	58.1	122	202 323	10.5	.0	.0	.0	.0	.0	8.3
PU	96.7	86.3	91.6	91.6	58.2	129	219 324	8.6	.0	2.2	.0	.0	.0	1.4
	94.8	84.6	89.7	90.0	58.3	122	184 335	9.7	.0	.0	.0	.0	.0	9.4
	94.5	84.5	89.5	89.0	58.2	124	189 338	9.7	.0	.0	.0	.0	.0	9.2
RL	94.6	84.5	89.6	89.5	58.2	123	187 337	9.7	.0	.0	.0	.0	.0	9.3
	92.3	82.1	87.2	87.0	57.8	122	197 344	8.6	.0	.0	.0	.0	.0	.0
	91.4	82.7	87.1	87.0	59.4	124	207 342	8.5	.0	.0	.0	.0	.0	.0
	91.9	83.1	87.5	87.0	59.4	125	204 335	8.7	.0	.0	.0	.0	.0	.0
	91.4	82.7	87.1	87.0	59.3	129	210 344	8.4	.0	.0	.0	.0	.0	.0
	92.0	83.4	87.7	87.0	60.3	125	202 332	8.7	.0	.0	.0	.0	.0	.0
	91.4	82.7	87.1	87.0	59.3	130	212 338	8.4	.0	.0	.0	.0	.0	.0
RU	91.7	82.8	87.3	87.0	59.2	126	205 339	8.5	.0	.0	.0	.0	.0	.0

EXHIBIT A

Gasoline Data from a Third Party, June 1992

RVP	ETOH	CITY_NAME	COMPANY_NAME	GRADE	T10	T50	T90
PSI	VOL%				(F)	(F)	(F)
REDACTED	6.7	9.2	REDACTED	REDACTED	MU	122	178 332
REDACTED	6.9	10.2	REDACTED	REDACTED	PU	139	217 309
REDACTED	6.9	9.9	REDACTED	REDACTED	MU	136	215 325
REDACTED	6.9	9.9	REDACTED	REDACTED	PU	136	219 314
REDACTED	7	5.7	REDACTED	REDACTED	MU	131	195 306
REDACTED	7	5.7	REDACTED	REDACTED	PU	136	201 305
REDACTED	7	5.8	REDACTED	REDACTED	MU	130	200 305
REDACTED	7	5.7	REDACTED	REDACTED	PU	132	198 300
REDACTED	7	5.8	REDACTED	REDACTED	RU	126	198 303
REDACTED	7	9.6	REDACTED	REDACTED	PU	139	223 304
REDACTED	7	10	REDACTED	REDACTED	MU	137	217 327
REDACTED	7	10.1	REDACTED	REDACTED	RU	134	208 338
REDACTED	7.1	9.6	REDACTED	REDACTED	MU	123	178 340
REDACTED	7.1	8.4	REDACTED	REDACTED	MU	138	197 308
REDACTED	7.1	8.7	REDACTED	REDACTED	PU	138	207 303
REDACTED	7.1	8.6	REDACTED	REDACTED	RU	140	194 311
REDACTED	7.1	5.7	REDACTED	REDACTED	RU	134	197 315
REDACTED	7.1	10.1	REDACTED	REDACTED	RU	138	218 340
REDACTED	7.2	9.6	REDACTED	REDACTED	RU	132	187 356
REDACTED	7.2	10.1	REDACTED	REDACTED	MU	120	161 335
REDACTED	7.2	7.7	REDACTED	REDACTED	PU	129	206 361
REDACTED	7.2	10.1	REDACTED	REDACTED	MU	132	203 358
REDACTED	7.2	10.1	REDACTED	REDACTED	RU	135	214 344
REDACTED	7.3	7.7	REDACTED	REDACTED	PU	141	221 325
REDACTED	7.3	7.4	REDACTED	REDACTED	PU	139	214 323
REDACTED	7.3	7.2	REDACTED	REDACTED	PU	138	231 345
REDACTED	7.3	7.1	REDACTED	REDACTED	RU	134	196 348
REDACTED	7.4	9	REDACTED	REDACTED	PU	140	239 328
REDACTED	7.4	9.3	REDACTED	REDACTED	MU	135	212 325
REDACTED	7.5	7.2	REDACTED	REDACTED	PU	133	218 340
REDACTED	7.5	10.5	REDACTED	REDACTED	RL	126	175 331
REDACTED	7.5	7.5	REDACTED	REDACTED	MU	130	207 349
REDACTED	7.5	8	REDACTED	REDACTED	PU	136	216 317
REDACTED	7.5	10	REDACTED	REDACTED	MU	133	203 333
REDACTED	7.5	10.1	REDACTED	REDACTED	PU	140	229 321
REDACTED	7.5	10	REDACTED	REDACTED	PU	140	217
REDACTED	7.6	8.87	REDACTED	REDACTED	RU	121	200 305
REDACTED	7.6	8.4	REDACTED	REDACTED	PU	136	215 330
REDACTED	7.6	7.5	REDACTED	REDACTED	PU	138	235 338
REDACTED	7.6	8.4	REDACTED	REDACTED	PU	137	234 334
REDACTED	7.6	10.3	REDACTED	REDACTED	MU	130	190 321
REDACTED	7.6	11.6	REDACTED	REDACTED	PU	137	217 336
REDACTED	7.6	11	REDACTED	REDACTED	RU	131	187 331
REDACTED	7.6	10.1	REDACTED	REDACTED	RU	130	197 340
REDACTED	7.6	10.2	REDACTED	REDACTED	RU	133	198 350
REDACTED	7.6	10.8	REDACTED	REDACTED	RU	134	199 320
REDACTED	7.6	10.3	REDACTED	REDACTED	PU	137	214 331
REDACTED	7.6	10.5	REDACTED	REDACTED	PU	139	219 338
REDACTED	7.6	10.5	REDACTED	REDACTED	PU	134	211 327
REDACTED	7.6	10.5	REDACTED	REDACTED	PU	139	212 304

# Exhibit B

**INSTRUCTIONS:** All material in this supplement is keyed to **SECTIONS** and **SUBSECTIONS** of the main volume. References to footnotes already in the volume are preceded by an "N." New footnotes do not have an "N."

# **CHISUM ON PATENTS**

**A TREATISE ON THE LAW OF  
PATENTABILITY, VALIDITY, AND  
INFRINGEMENT**

**JULY 2000  
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**VOLUME 3**

**Donald S. Chisum**

*Professor of Law*

*Santa Clara University*

*Santa Clara, California*

**2000**

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understanding of the law and are believed to be fully consistent with binding precedent of the Supreme Court, the Federal Circuit, and the Federal Circuit's predecessor courts.

These guidelines do not constitute substantive rulemaking and hence do not have the force and effect of law. They are designed to assist Office personnel in analyzing claimed subject matter for compliance with substantive law. Rejections will be based upon the substantive law, and it is these rejections which are appealable. Consequently, any failure by Office personnel to follow the guidelines is neither appealable nor petitionable.

These guidelines are intended to form part of the normal examination process. Thus, where Office personnel establish a prima facie case of lack of written description for a claim, a thorough review of the prior art and examination on the merits for compliance with the other statutory requirements, including those of 35 U.S.C. 101, 102, 103, and 112, is to be conducted prior to completing an Office action which includes a rejection for lack of written description.

Office personnel are to rely on these guidelines in the event of any inconsistent treatment of issues involving the written description requirement between these guidelines and any earlier guidance provided from the Office. Although these guidelines address examples principally drawn from the biotechnological arts, they are intended to be equally applicable to all fields of invention.

#### **I. General Principles Governing Compliance with the 'Written Description' Requirement for Applications**

The first paragraph of 35 U.S.C. 112 requires that the 'specification shall contain a written description of the invention \* \* \*'. This requirement is separate and distinct from the enablement requirement.<sup>4</sup> This written description requirement has several policy objectives. '[T]he "essential goal" of the description of the invention requirement is to clearly convey the information that an applicant has invented the subject matter which is claimed.'<sup>5</sup> Another objective is to put the public in possession of what the applicant claims as the invention. The written description requirement prevents an applicant from claiming subject matter that was not described in the specification as filed, and the proscription against the introduction of new matter in a patent application<sup>6</sup> serves to prevent an applicant from adding information that goes beyond the subject matter originally filed.

To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention.<sup>7</sup> This requirement of the Patent Act promotes the progress of the useful arts by ensuring that patentees adequately describe their inventions in their patent specifications for the benefit of the public in exchange for the right to exclude others from practicing the invention for the duration of the patent's term.<sup>8</sup>

#### **II. Evaluate Whether The Application Complies With the 'Written Description' Requirement**

The inquiry into whether the description requirement is met must be determined on a case-by-case basis and is a question of fact.<sup>9</sup> The examiner has the initial burden of presenting evidence or reasons why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims.<sup>10</sup> Office personnel should adhere to the following procedures when reviewing patent applications for compliance with the written description requirement of 35 U.S.C. 112, 1.

##### **A. Review the Entire Application To Determine What Applicant has Invented, the Field of the Invention and the Level of Predictability in the Art**

Prior to determining whether the claims satisfy the written description requirement, Office personnel should review the entire specification, including the specific embodiments, figures,